



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,296	12/08/2004	Kenji Adachi	040644	5591
23850 7590 05/12/2009 KRATZ, QUINTOS & HANSON, LLP 1420 K Street, N.W. Suite 400 WASHINGTON, DC 20005				
EXAMINER				
LEE, CYNTHIA K				
ART UNIT		PAPER NUMBER		
1795				
MAIL DATE		DELIVERY MODE		
05/12/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/516,296

Applicant(s)

ADACHI ET AL.

Examiner

CYNTHIA LEE

Art Unit

1795

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 10, 11 and 15-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S5108)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

Response to Arguments

This Office Action is responsive to the amendment filed on 2/2/2009. Claims 1-29 are pending. Claims 10, 11, 15-29 are withdrawn from further consideration as being drawn to a non-elected invention. Applicant's arguments have been considered, but are not persuasive. Claims 1-9 and 12-14 are finally rejected for reasons of record.

Election/Restrictions

The Examiner notes that the election of species was made without traverse. Nonetheless, the Examiner addresses the Applicant's arguments on pg 7 of Response. The Examiner disagrees with the Applicant in that the Specification does not support the use of 5 organic salts. Thus, it is noted that the species requirement was proper.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Watanabe (EP 1213776).

Watanabe discloses molten salt electrolyte comprising a single or a combination of compounds as disclosed on pgs 16-22 of Watanabe. It is noted that compounds Y1 and Y2 read on Applicant's compound I in claim 2 and compound Y6 reads on Applicant's compound II in claim 2.

Regarding claims 1, 3, and 4, It has been held by the courts that if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F2d 705,709, 15 USPQ2d 1655 1658 (Fed. Cir. 1990). See MPEP 2112.01. A claim to a chemical product defining both its composition and previously unknown advantageous property is anticipated by a reference disclosing the product although the reference does not disclose the newly discovered property. Titanium Metals Corp. v. Banner, 227 USPQ 773 (Fed. Cir. 1985).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-9, 12, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (EP 1213776).

Watanabe discloses molten salt electrolyte comprising a single or a combination of compounds as disclosed on pgs 16-22 of Watanabe. It is noted that compounds Y1 and Y2 read on Applicant's compound V in claim 5 and compound Y6 reads on Applicant's compound VI in claim 5.

Regarding claim 5, Watanabe does not disclose that at least one hydrogen atom on an alkyl group of R6 and R11 is substituted by fluorine. However, It has been held by the courts that it is prima facie obvious to substitute a halogen for hydrogen. Ex parte Dole 119 USPQ 260 (PO BdPatApp 1957); Ex parte Teter 105 USPQ 102 (PO BdPatApp 1955).

Regarding claim 13, the anionic moieties Y1-3 and Y6-7 on pg 16 and 17 of Watanabe read on the moieties as claimed by the Applicant.

Response to Arguments

Applicant's arguments filed 2/2/2009 have been fully considered but they are not persuasive.

Applicant argues that the Watanabe et al. publication only mentions examples of molten salts on pages 16 to 22, and teaches on page 16, paragraph [0079] that a mixture of two or more molten salts may be used. Example 4 of Watanabe et al. publication, which is the only specific Example, discloses a single molten salt (1-methyl-3-hexylimidazolium iodide).

The Examiner remains unpersuaded. It is noted that the Examiner is relying on [0079] of Watanabe and not Example 4.

Applicant argues that a particular feature of the molten salt of the present claim 1 lies in that it comprises "a mixture of two or more organic salts with different anionic moieties and different organic cationic moieties." is not taught or suggested by the cited publication to Watanabe et al. With this feature, the molten salt mixture exhibits a markedly lower solidifying point than that of any of the individual organic salts.

In response, it has been held by the courts that if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F2d 705,709, 15 USPQ2d 1655 1658 (Fed. Cir. 1990). See MPEP 2112.01. A claim to a chemical product defining both its composition and previously unknown advantageous property is anticipated by a reference disclosing the product although the reference does not disclose the newly discovered property. Titanium Metals Corp. v. Banner, 227 USPQ 773 (Fed. Cir. 1985).

Applicant argues that Watanabe et al. publication merely discloses the use of a mixture of two or more molten salts, and is totally silent about mixing "two or more organic salts with different anionic moieties and different organic cationic moieties." Hence, the Watanabe et al. publication does not provide any reasonable motivation that would lead to the subject matter of present claim 1.

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Lee whose telephone number is 571-272-8699. The examiner can normally be reached on Monday-Friday 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cynthia Lee/
Examiner, Art Unit 1795

/PATRICK RYAN/
Supervisory Patent Examiner, Art
Unit 1795